



UNITED STATES PATENT AND TRADEMARK OFFICE

TH

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,283	03/18/2004	Shankar Pal	MSFT-2930/304868.01	5646
41505	7590	10/05/2006	EXAMINER	
WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION)			RAYYAN, SUSAN F	
ONE LIBERTY PLACE - 46TH FLOOR			ART UNIT	
PHILADELPHIA, PA 19103			PAPER NUMBER	

2167

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,283

Applicant(s)

PAL ET AL.

Examiner

Susan F. Rayyan

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 0200 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/18/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-23 are pending.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on March 18, 2004 was filed before First Office Action. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Publication Number 2003/0101169 issued to Vadiraja Bhatt et al ("Bhatt").

As per claim 1 Bhatt anticipates:

A method for compiling a query including an extensible markup language based expression (Figure 8, element 802), the method comprising:

transforming an abstract syntax tree corresponding to the expression into a unified tree including extensible markup language based algebra operations (paragraph 80-82, 154,

Art Unit: 2167

receives and parses a query received from an application and generates a logical tree which includes algebraic operations);

and mapping the extensible markup language based algebra operations in the unified tree to relational algebra based operations in a relational tree (paragraph 120, 155, Figure 8, element 803, the logical tree will be translated by the query translation module which includes algebraic operations).

As per claim 2, same as claim arguments above and Bhatt anticipates:

wherein transforming the abstract syntax tree comprises:

recursively traversing the abstract syntax tree (paragraph 84-89, 121);

generating a unified sub-tree for each abstract syntax tree node, the sub-tree including at least one corresponding extensible markup language based algebra operation and inserting the sub-tree into the unified tree (paragraph 90-91, transformation process includes algebraic operations) .

As per claim 3, same as claim arguments above and Bhatt anticipates:

recursively traversing the unified tree (paragraph 99, 121);

generating a relational sub-tree for each unified tree node, the sub-tree including at least one corresponding relational algebra based operation (paragraph 101, the query translation module receives as input the tree generated by the XQL parser and generates a physical operator tree which includes algebraic based operations)

and inserting the sub-tree into the relational tree (paragraph 101).

As per claim 4, same as claim arguments above and Bhatt anticipates:

further comprising parsing the query to yield the extensible markup language based expression (paragraph 74).

As per claim 5, same as claim arguments above and Bhatt anticipates:

further comprising parsing the extensible markup language based expression to yield the abstract syntax tree (paragraph 74).

As per claim 6, same as claim arguments above and Bhatt anticipates:

further comprising generating a query plan according to the relational tree (paragraph 121, Figure 6).

As per claim 7, same as claim arguments above and Bhatt anticipates:

further comprising submitting the query plan to a query processor for execution by the query processor (paragraph 121, Figure 6).

As per claim 8, same as claim arguments above and Bhatt anticipates:

Art Unit: 2167

comprising mapping the extensible markup language based algebra operations in the unified tree to relational algebra based operations with nested table abstraction in the relational tree (paragraph 155).

Claims 9-23 are rejected based on the same rationale as claims 1-8.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Rayyan whose telephone number is (571) 272-1675. The examiner can normally be reached M-F: 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Susan Rayyan

September 29, 2006



JOHN COTTINGHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100